

THE DEFAULT MOTIVE:
BLAMING MENTAL ILLNESS FOR VIOLENCE DEPICTED IN NEWS STORIES

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The default motive:

Blaming mental illness for violence depicted in news stories

Introduction

Though the mentally ill are more likely to be the victims of violent crimes than the perpetrators, the saturation of negative media images surrounding mental illness can lead to the belief that the mentally ill are more dangerous and more likely to commit violent acts than those without mental illness (Stuart, 2003; Wahl, 1995). This belief can foster stigma toward those with mental illness and can lead to negative outcomes such as decreased employment, increased social isolation, and barriers to seeking treatment (Link, Cullen, Struening, Shrout, & Dohrenwend, 1989; Markowitz, 1998; Philo et al., 1994). Goffman (1963) recognized stigma not as only a matter of attributes, but also of the communication and labeling of identity. The perceptions of an identity is as important as the facts of an identity.

This study aimed to provide evidence of the degree to which news consumers connected news stories of violent crimes with mental illness as a motive. By examining perceptions of mental illness as a possible motive when presented with composite news stories depicting crimes with different levels of violence (no violence, low violence, and high violence) and where mental illness was either included as part of the story or excluded from the narrative, the researcher was able to demonstrate that news consumers connected mental illness with violent acts, even when mental illness was not explicitly mentioned in a news article. This demonstrated a clear connection in the mind of the news consumer linking violent crime with mental illness. Furthermore, the results of this study demonstrated that news consumers ranked mental illness higher than other potential motives when the level of violence was elevated in a criminal act.

Understanding how audiences perceive the information communicated to them about mental illness (explicitly and implicitly) can help those in the field of journalism to understand the media's role in fostering the inaccurate connection between violence and mental illness and how the media must play a part in counteracting the negative effects of this connection.

Literature Review

Stigma

Goffman (1963) referred to stigma as belonging to a language of relationships, not attributes. Hence, society categorizes persons and the normal attributes associated with that category of person. The attributes and categories assigned to a person make up the virtual social identity. The attributes a person actually possess makes up the actual social identity. He classified stigma as a spoiling of an accepted virtual identity, a violation of the social contract, by a revelation of some kind of defect in the actual social identity. It is clear in this work that what is perceived of an identity is just as important as the facts of an identity.

Stigma has been identified as the foremost barrier to Americans seeking treatment for mental health concerns (Hogan, 2003). Failing to obtain treatment for mental health disorders can lead to low self-esteem, isolation, and hopelessness. It has been argued that the negative images associated with mental illness in the media are a direct cause of the internal stigma that makes individuals reticent to seek treatment (Philo et al., 1994). The effects of stigma are especially harmful in minority communities where individuals are less likely than their white counterparts to seek treatment at all, and more likely to drop out once beginning treatment (Corrigan & Watson, 2002; Corrigan, 2004; McGuire & Miranda, 2008).

Those living with mental illness are subjected to many negative effects of stigma. This includes loss of status, loss of self-esteem, diminished employment opportunities, and restricted

access to housing (Link & Cullen, 1986; Link, Cullen, Frank, & Wozniak, 1987; Link & Phelan, 2001; Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001; Wahlbeck, 2015). Beliefs about the social treatment of those with mental illness are developed early in life in part as a result of the portrayal of mental illness in the media (Wahl, 1995). For a person who may develop a serious mental illness later in life these early beliefs can indicate that they will find difficulty being accepted as a friend, neighbor, employee, or significant other (Link & Phelan, 2001; Link et al., 2001).

Stigma can also affect the availability and locations of treatment options. Structural discrimination resulting from stigma can lead to treatment facilities for mental illness being located in isolated, poor, or otherwise less desirable areas (Link & Phelan, 2006). This phenomenon can be attributed to the concept of social distancing, or the lack of willingness to interact with those labeled as having mental illness (Reinke, Corrigan, Leonhard, Lundin, & Kubiak, 2004). The perception of dangerousness is linked to social distancing behavior when mental illness is a factor (Link & Cullen, 1986). It has been shown that the desire for social distance from those affected by mental illness increases and tolerance decreases with higher levels of television and newspaper consumption (Angermeyer & Matschinger, 1996; Granello & Pauley, 2000).

Attention given to crimes committed by those living with mental illness can also affect public policy debate and design. Two well-publicized cases involving men with mental illness in the United Kingdom were associated with campaigns designed to provide care to those affected by mental illness for their safety and the safety of others (Hallam, 2002). While these kinds of public policy debates may seem helpful, they have the potential to further stigmatize individuals who are living with mental illness and can actually lead to decline in appropriate care (Hallam,

2002). There have even been calls to broadly restrict the civil liberties of those diagnosed with mental illness, such as a call to jail people living with mental illness who refused to take their medication (Sieff, 2003).

Mental Illness and Violence in the Media

The framing of mental illness as a contributing factor to violent crime has been a prevalent and persistent issue in mass media (McGinty, Webster, Jarlenski, & Barry, 2014). Mass media representations of mental illness are frequently inaccurate and sensationalized (Wahl, 1995). This is problematic as mass media are principal sources of information about mental illness for the public (Borinstein, 1992; Fischhoff, 1996; Wahl 2003). These representations often suggested that those who are affected by mental illness are more likely to be dangerous, or commit violent crimes, when evidence showed the opposite to be true. Those living with mental illness are more than twice as likely to be victimized by violent crime than to commit it (Hiday et al., 1999). Despite these findings, the general public has possesses an amplified perception of the connection between mental illness and violence (Stuart, 2003).

This amplified perception may be an illustration of the availability heuristic as studied by Tversky and Kahneman (1973). Through experimentation these researchers sought to explain the psychological mechanisms through which people evaluate the frequency of classes in a sequence or likelihood of events. They proposed that people, when confronted with the task of estimating probability or the frequency of events, would rely on a limited number of heuristics to transform a complicated judgement into a simpler one. Through their work evidence was found to support the idea that people judge the frequency of a class by the ease of which a relevant instances comes to mind, called assessed availability. The researchers also developed the idea of frequency of co-occurrence, in which they proposed that an assessment of the associative bond between

two items or ideas is one of the mechanisms that are used to judge the frequency of the occurrence of both together. Therefore, the frequent representation of both mental illness and violence together in the media may increase the assessed availability and frequency of co-occurrence of the two ideas in the minds of news consumers.

This is not only an issue in the United States. A content analysis of articles published in a large German newspaper found that news items about crimes committed by a mentally ill suspect were the largest reported category of stories involving mental illness in the publication (Angermeyer & Schulze, 2001). Other categories included suicide information on mental health issues, violence against those with mental illness, and advice on mental health problems. The articles linking mental illness to violence made up little over half the stories that were published, indicating a bias toward linking mental illness with violent crime over other kinds of reporting about mental illness. In these stories mental illness was either used as an explanation of the criminal activity, as a way to explain the punishment for a crime (the suspect was sent to an institution in lieu of prison), or as a way to further sensationalize the violent incidents reported. This final category added the element of deviance, communicated through visual language, to further establish a connection between violence/criminal activity and mental illness. Therefore, based on this prior research it is predicted:

News consumers exposed to a news story depicting a non-violent crime will attribute mental illness as a motive to explain the crime to a lesser degree than news consumers exposed to a news story depicting a low-violence crime (**H1a**) and a high-violence crime (**H1b**). Additionally, news consumers exposed to a news story depicting a low-violent crime will attribute mental illness as a motive to explain the crime to a lesser degree than news consumers exposed to a news story depicting a high-violence crime (**H1c**).

To test the effects of media attention to mental illness and on the public perception of those with mental illness, Angermeyer and Schulze (2001) used three highly publicized cases of attacks on famous persons where the attacker was indicated to have mental illness. The researchers conducted open-ended interviews in which they presented each participant with a vignette involving a former mental patient. The researchers then asked the participants to respond to a series of questions regarding the perceived dangerousness and desire for social distance from the individual in the story. The researchers found that the participants reacted negatively to the individual in the story not only due to the label of “former mental patient,” but also based on their conception of what it meant to be a former mental patient and found that they had a desire to avoid such a person.

Social isolation can have negative effects on those who live with mental illness, as well as those who find themselves passing judgement on those with mental illness without having known anyone that they perceive as being mentally ill. It has been shown that interacting with those who have mental illness increases knowledge and acceptance of the disorders (Siu et al., 2012; Stuart, 2005; Wahlbeck, 2015). It has also been shown that social interaction can have a positive effect on treatment seeking behaviors, consistency in continuing treatment, and treatment outcomes for those living with mental illness (Corrigan, 1998; Corrigan, 2004; Link et al., 1987).

Mental illness is often portrayed in print and television/movies (fiction and nonfiction) based on characteristics selected to heighten storytelling and drama, rather than present factual information. In a 1979 study of stories of homicide in American newspapers, Kalbfleisch (as cited in Wahl, 1995) identified the most common characteristics in top stories in the publications: insanity, unpredictability, and victimization of normal people. Research has found

that news articles about mass shootings that also mention the mental health history of the shooter or educational information about mental health from an expert correlated with significantly less positive attitudes toward the perceived dangerousness of and an increase in the desire to social distance from those with mental illness (Wilson, Ballman, & Buczek, 2016). This emphasis on mental illness in stories of violent crimes can create a spurious connection between the two concepts (Wahl, 1995).

This connection persists, even though research has shown that other factors, such as substance abuse or hostile family relationships, are major contributors to instances of violence in the community whether the issue is concurrently experienced with mental illness or not (Stuart, 2003). This inability or unwillingness to consider outside factors, rather than personality defects, may be an example of fundamental attribution error, an outgrowth of attribution theory (Heider, 1958; Ross, 1977). In these theories ordinary people are seen as intuitive psychologists who use implicit assumptions and data (often second hand, as through the mass media) to understand the causes and implications of the behaviors they witness. Fundamental attribution error finds that individuals easily attribute behaviors in others to internal, personal attributes rather than considering relative external causes of those behaviors.

Based on this reviewed literature it is predicted: News consumers exposed to a news story about a crime that includes a mental illness frame will consider mental illness more likely to be a motive for the crime than news consumers not exposed to a mental illness frame (**H2**).

Framing

It is possible that news consumers will perceive multiple motives to explain a criminal act. Even when the perception of mental illness as a contributing factor is high, there is a possibility that a news consumer considers it less likely a motive than other factors. Iyengar

(1994) found that the framing of a news story about crime can affect the way the news consumer attributes responsibility for the criminal act. Consumers either attributed criminal actions to deficiencies of character to societal factors based on the frame of the news story. Deficiencies of character cited include greed or personality disorders. Societal factors included social, political, or economic conditions that cultivate crime, as well as a society that fails to adequately punish those who commit crimes. Due to the possibility of multiple motive perceptions it was necessary to look at the ranking of mental illness as a motive for criminal activity as compared to other potential motives, rather than simply listing each motive individually on a Likert-type scale where it was possible for respondents to assign equally high responsibility to multiple motives.

Based on this information, combined with the previously reviewed literature, it is predicted: that the more violent a crime depicted in a news story, the higher mental illness will be ranked by news consumers to explain the crime, regardless of whether the news story includes or excludes a mental illness frame (**H3a**). Additionally, news consumers exposed to a non-violent news story (**H3b**) or low-violence news story (**H3c**) about a crime will rank mental illness as a potential motive to explain the crime higher when the news story includes a mental illness frame than when that frame is excluded. However, news consumers exposed to a high-violence news story about a crime will rank mental illness high, regardless of whether a mental illness frame is included or excluded in the story (**H3d**).

We would further predict that news consumers exposed to a non-violent news story will not consider mental illness the highest ranked motive in comparison to other motives, regardless of whether a mental illness frame is included or excluded (**H4a**). We expect that news consumers exposed to a low-violence news story will consider mental illness the highest ranked motivate in comparison to other potential motives when a mental illness frame is included (**H4b**), but not

when it is excluded (**H4c**). Finally, it is hypothesized that news consumers exposed to a high-violence new story will consider mental illness the highest ranked motive in comparison to other motives, regardless of whether a mental illness frame is included or excluded (**H4d**).

Methods

Previous Phases

The current study is the final phase of a multi-phase study started in the summer of 2018 conducted over the following two years. For a complete explanation of the study pilot and previous phases refer to Appendix B. To read the stimuli stories used in previous phases refer to Appendix C.

Participants

The respondents for this experiment ($N = 198$) were recruited through Amazon's Mechanical Turk (MTurk) platform. The only restrictions on participation were that respondents must be over 18 years-old and must be from the United States. Respondents were compensated \$0.60 for an estimated ten minutes or less of participation time.

Demographics. The ages of respondents ranged from 23 to 72, with a mean age of 35.5. Of the 198 respondents 64.8% identified as male and 35.2% identified as female. Respondents were also asked to identify their race or ethnicity. Of the 198 respondents 72.4% selected Caucasian/White, 16.1% selected Asian, 8% selected African American/Black, 4.5% selected Hispanic/Latino, and 0.5% selected Native Hawaiian/Pacific Islander. Four respondents indicated that they identified with multiple races or ethnicities. More than half of respondents (56.3%) indicated that they had completed a 4-year college degree as their highest level of education. Other responses included high school diploma or equivalent (8.5%), some college without completing a degree (8.5%), 2-year associate degree (10.65%), master's degree (15.1%),

and doctoral degree (1%). When asked to identify the characteristics of the place where they primarily grew up 52.8% of respondents indicated that they grew up in an urban environment, 33.7% indicated a suburban environment, and 13.6% indicated a rural environment.

Materials

The experiment materials included six stimuli stories, a motive questionnaire, and a ranked motive questionnaire.¹ Basic demographics, as noted in the previous paragraph, were gathered. Also included were the informed consent page and respondent debriefing page.

This project utilized a 3*2 factorial experiment design. Stories were written at one of three violence levels (no violence, low violence, and high violence). The victim count was kept consistent at 15 for all stories and approximate length was maintained throughout each of the stories to avoid confounding factors based on this information. The criminal acts in the no violence conditions were identity theft and possession of stolen property. The crimes in the low violence conditions were aggravated battery and disorderly conduct following an altercation at a bar. Although a fight involving 15 individuals is violent, the absence of casualties or serious injuries was utilized to indicate the low level of violence involved in the incident. The high violence story conditions contained an account of a workplace shooting with 15 victims, three of whom died as a result of the attack.

Each story was also written in one of two framing conditions: mental illness or no mental illness. The mental illness framing condition included a statement by a law enforcement official claiming that the suspect may have been bipolar. The no mental illness condition removed this

¹ Also included were questionnaires regarding newsworthiness, source believability, mental illness knowledge, mental illness empathy and prior mental illness exposure. These concepts were tested as control variables but had no effect on the analysis. For a full description of these items see Appendix D. To view questionnaires see Appendix E.

statement from the story. Due to the inclusion of this statement the three mental illness condition stories were one paragraph longer than the three no mental illness condition stories.

The six stimuli stories (Appendix A) were composite stories constructed using multiple newspaper articles reporting violent crimes committed by a single individual (primarily a 2016 workplace shooting in the Midwest and the 2017 Las Vegas concert shooting). The dateline and structure of a news story was maintained to mimic the appearance of an authentic AP wire story. To conceal the location of the shooting providing the foundation for the stories some details of the incidents were changed, such as the name of the business where the event took place. This served to control for the possibility that a participant might have previous knowledge of that specific incident. To control for any implicit bias or stereotyping effect based on the name of the suspect, the name was altered to an ambiguous and common name for males in the United States (Park & Banaji, 2000). The U.S. Census Bureau website was used to find the most common first names for males and overall most common last names in the United States. The final combination of first and last name was randomly selected.

The questionnaire section asked respondents to indicate the likelihood that listed contributing factors led to the crime in the news story. These factors included financial difficulty, criminal history, drug use, family background, prior victimization, education level, marital status, and mental illness. The respondents were asked to indicate their responses on a seven point Likert-type scale ranging from extremely likely to extremely unlikely. Respondents were also asked to order the contributing factors from most likely to have contributed to the criminal actions of the suspect to least likely. This section was used to determine differences in perceived contributing factors leading to violent crime between story versions.

Procedure

The respondents were provided with a Qualtrics link via Amazon's MTurk platform. After agreeing with the informed consent materials participants were asked to read one of the six stimuli stories, randomly selected by the Qualtrics system. Respondents were then prompted to answer the survey questions. At the end of the survey the respondents were provided with a debriefing statement explaining the deception in creating the composite stories.

Analysis

The hypotheses were tested with a variety of statistical procedures. To test **H1a**, **H1b**, and **H1c** a two-way analysis of variance (ANOVA) was conducted using the mental illness motive rankings and the violence level variable. **H2** was also analyzed using the two-way analysis of variance. Kruskal-Wallis and Mann-Whitney U tests were conducted to test **H3a**, **H3b**, and **H3c**, which focused on the two different framing conditions in connection with mental illness motive rankings. A Wilcoxon Signed-Ranks Test was performed to test the final set of hypotheses: **H4a**, **H4b**, **H4c**, and **H4d**. This test was used to compare the average rankings for all listed motives.

Results

It was predicted that news consumers exposed to a news story depicting a non-violent crime would attribute mental illness as a motive to explain the crime to a lesser degree than news consumers exposed to a news story depicting a low-violence crime and high-violence crime. Additionally, it was predicted that news consumers exposed to a news story depicting a low-violence crime would attribute mental illness as a motive to explain the crime to a lesser degree than news consumers exposed to a story depicting high-violence crime. The mean average for mental illness as a motive was a bit above average in both the frame included condition ($M =$

4.2, $S.D. = 2.1$) and frame excluded condition ($M = 4.1$, $S.D. = 4.1$). It was considered more of a motive in the low violence condition both when the mental illness frame was included ($M = 5.3$, $S.D. = 1.4$) and when it was excluded ($M = 4.6$, $S.D. = 1.7$). The mean average was a bit higher when the frame was included, but that direction was reversed for the high violence conditions. When the mental illness frame was included ($M = 4.9$, $S.D. = 1.8$) it was actually lower than when the frame was excluded ($M = 5.5$, $S.D. = 1.7$). A two-way analysis of variance indicated that the violence level of a crime was a significant predictor of news consumers attributing mental illness as a motivation to explain the crime, $F(2, 192) = 6.745$, $p = .001$. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the no violence condition was statistically significantly different from both the low violence ($p = .033$) and high violence ($p = .001$) conditions. There was no statistically significant differences among the two violence conditions ($p = .545$). Overall, this presented evidence in support for **H1a** and **H1b**, but not for **H1c**.

[INSERT TABLE 1]

It was also predicted that news consumers exposed to a news story about a crime that included a mental illness frame would consider mental illness more likely to be a motive for the crime than consumers not exposed to a mental illness frame. The two-way analysis of variance indicated that the mental illness frame was not a statistically significant factor, $F(1, 192) = .179$, $p = .673$, which provided no evidence in support of **H2** based on the average means of mental illness as a motive for the crimes depicted in the stories.

Similar comparisons were made based on the ranking of mental illness as a motive for the crimes in comparison to other potential motives. Mental illness was not ranked highly in either no violence condition: frame included ($M = 4.2$, $S.D. = 2.4$) and frame excluded ($M = 4.7$, $S.D. =$

2.0). But, there was a large difference among the low violence conditions. When the frame was excluded, it was ranked in the middle of the eight potential motives ($M = 4.5$, $S.D. = 2.7$), similar to the no violence condition. However, it was ranked much higher in frame included condition ($M = 2.8$, $S.D. = 2.3$), which was similar to both high violence conditions: frame included ($M = 3.2$, $S.D. = 2.2$) and frame excluded ($M = 2.8$, $S.D. = 2.5$).

[INSERT TABLE 2]

It was predicted that mental illness would be ranked higher by news consumers to explain the crime, irrespective of the presence of a mental illness frame. Kruskal-Wallis tests were conducted to examine the difference in the ranked mental illness motive among the entire sample. A statistically significant difference ($H = 13.586$, $p = .001$, $df = 2$) was found for mental illness ranking based on violence level over the entire sample. A statistically significant difference was also found when taking into account the inclusion of a mental illness frame ($H = 6.537$, $p = .038$, $df = 2$) and exclusion of a mental illness frame ($H = 12.895$, $p = .002$, $df = 2$).

Whereas, those analyses were based on the average ranking among the potential motives, it was also possible to examine this with the ranking distribution of mental illness as a potential motive, as depicted in Table 3. This analysis indicated that there was a statistically significant difference in ranking mental illness as a motive based on violence level when the mental illness frame was excluded ($\chi^2(14) = 33.04$, $p = .003$), but not when it was included ($\chi^2(14) = 18.83$, $p = .171$). Thus, this provided contrary support for **H3a**.

[INSERT TABLE 3]

It was also predicted that news consumers exposed to a news story depicting a non-violent crime or low-violence crime would rank mental illness as a potential motive higher when the news story included a mental illness frame. Additionally, it was predicted that news

consumers exposed to a high-violence news story would rank mental illness high, regardless of the absence or inclusion of a mental illness frame. The results indicated that there was no statistically significant difference comparing the no violence conditions for both the mean ranking average and the ranking distribution of mental illness as motive. That meant there was no evidence in support of **H3b**. However, there were statistically significant results for **H3c** comparing the low violence conditions for mean ranking ($U = 335.00, p = .007$) and ranking distribution ($\chi^2(7) = 14.81, p = .008$). Additionally, there is a statistically significant result for the high violence conditions for the ranking distribution ($\chi^2(7) = 14.67, p = .026$). However, the difference in the mean average was in the opposite direction from what was predicted. Participants ranked mental illness higher as a motive when the mental illness frame was excluded rather than included, which means that there was no evidence in support of **H3d**.

The last set of predictions were focused on comparing the average ranking for all motives. For instance, it was expected that news consumers exposed to a non-violent news story would not consider mental illness to be the highest ranking motive, regardless of mental illness frame. Additionally, it was predicted that news consumers exposed to low-violence news stories would rank mental illness higher as a motive compared to the other motives when a mental illness frame was included, but not when it was excluded. Lastly, it was hypothesized that news consumers exposed to a high-violence news story would consider mental illness to be the highest ranked motive, regardless of inclusion or exclusion of the mental illness frame.

[INSERT TABLE 4]

Financial difficulty had the highest mean ranking of all motives for the no violence condition with the mental illness frame included. Also, drug use was ranked higher than mental illness, although both comparisons were not statistically significant. There were even bigger

differences when the mental illness frame was excluded: financial difficulty, criminal history, drug use, family background, and education were all ranked higher than mental illness. The comparison with financial difficulty ($Z = -3.109, p = .002$) and criminal history ($Z = -3.641, p < .001$) were statistically significant. This provided evidence in support of **H4a**.

Three other motives were also ranked higher than mental illness in the low violence condition when the mental illness frame was excluded, although those comparisons were not statistically significant. That was very different in the low violence condition with the mental illness frame. As depicted in Table 4, it was by far the highest ranked motive with statistically significant results in comparisons with all other motives, except family background. This provided overwhelming evidence in support of **H4b**, but **H4c** was statistically not supported—although the means were in the expected direction. There was also overwhelming evidence in support for **H4d**. Mental illness was the highest ranked motive in both high violence conditions. There were five statistically significant differences with other motives when the mental illness frame was included and six statistically significant differences with other motives when the mental illness frame was excluded (only the difference with prior victimization was not).

Discussion and Conclusion

It is widely understood that the stigma cultivated by the persistent connections between mental illness and violence portrayed in the media can lead to effects such as social isolation, reduced treatment outcomes and options, reduced employment opportunities, and many other negative consequences for those living with mental illness. What is less known, however, is how these connections continue to affect the perceptions of the mental illness and violence even when mental illness is not explicitly cited as a possible contributing factor in news reports of criminal activity and violence.

The results of this study indicated that news consumers not only connect mental illness with a high-violence criminal act (such as a mass shooting) when the story was framed to include mental illness, but even when the story contained no overt mention of mental illness at all. Half the participants ranked mental illness as by far the most likely motive for a highly violent crime without a reference to mental illness, and that was the case for one-out-of-five participants in the low violence condition as well. Thus, mental illness was automatically linked to any level of violence. The inclusion of the mental illness frame more than doubled the percentage of first-place rankings for the low violence condition. Given that previously reviewed literature illustrated the use of mass media as a primary source of information about mental illness, it stands to reason that the continued perception of this connection is influenced by the representation of mental illness in the mass media.

Awareness of the effects of linking violent crime with mental illness is of critical importance to those in the journalism field. Research showed that the mass media, including the news media, are primary sources of information about mental illness for the public (Borinstein, 1992; Fischhoff, 1996; Wahl, 2003). Studies have also shown that this information was frequently sensationalized and inaccurate, and the link between mental illness and violent crime was a persistent frame in the media (McGinty et al., 2014; Wahl, 1995). Journalists must be made aware and take steps to actively combat this practice in their work. The Associated Press provided a list of best practices that, if followed, would make great strides in lowering the occurrences of inaccurate and misleading depictions of mental illness in the news media (Froke et al., 2019). Suggested actions included not describing an individual as having a mental illness unless it is clearly relevant to the story, not relying on hearsay or speculation for a diagnosis, avoiding descriptions that indicate a person is to be pitied for their diagnosis, and avoiding

derogatory terms for mental illness. The AP also suggested that any stories with direct quotes indicating mental illness, such as those from first responders, that cannot be verified by a medical professional also include a disclaimer that a link had not been officially established between the subject's behavior and any mental illness.

This also meant that there is an important need for expanding the training and materials about reporting on mental illness in journalism education programs. Students in journalism education programs have been exposed to the same media and representations of mental illness in connection with violent crime as the rest of the news consuming public. As well as being subject to the same biases as news consumers, journalism students are also in a position to either continue perpetuating their misconceptions in their careers as media professionals, or to be a part of the process of reversing the damage done to this point by decades of media misrepresentation. Research is needed to first determine the extent to which this media has had an effect on students in journalism programs. The experiment performed in this paper can be repeated with journalism students and the results compared to those of the MTurk respondents. This research can demonstrate a need for a specific educational intervention about media effects, stigma, and reporting on mental illness in journalism education to disrupt the cycle of media bias and effects. Once an intervention is developed, pre- and post- testing can be conducted to evaluate the effectiveness of interventions on this topic. This area is a prime candidate for participatory action research, as journalism students and educators are in the best position to assist the researcher in developing effective educational interventions for their programs.

Future research in this area is also needed to continue identifying the extent to which news consumers will connect mental illness with violence. While it has been shown here that a mass shooting as the high violence condition will prompt this connection even when no mention

is made of mental illness in the provided news story, it is possible that mass shootings are unique in the in the minds of news consumers due to their extensive news coverage and the often large number of casualties as a result of these instances. It has also been found in previous research that the majority of news coverage about mass shootings specifically may contribute to negative attitudes toward those with mental illness (Wilson et al., 2016). It may be that other instances of high violence will produce different results. Future research could also examine comparisons with other types of motives and the extent to which motives are blamed on the individual or external forces.

The additional scales included in the Qualtrics survey ultimately had no effect on the analysis conducted for this project and were excluded from the final results. However, these scales may have some value to future research in this area. The research questions and hypotheses that were present at the outset of this project in 2018 relied heavily on these scales. These questions looked at the believability of the individual sources within the articles, as well as the believability of the articles themselves, based on the terminology used by the source. It was supposed that the higher the level of mental illness knowledge, and the higher the level of mental illness empathy, the more believable respondents were likely to find the stories and sources when clinical terminology was used. Inversely, it was assumed that lower levels of mental illness knowledge and mental illness empathy would result in less of a distinction between the sources and stories where derogatory slang terminology was used and those where clinical terminology was used. Likewise, the newsworthiness scale was assumed to correlate with mental illness knowledge and mental illness empathy in much the same way. With all of these assumptions there was also the possibility of an interaction effect with previous exposure or experience with mental illness. It has been shown that interacting with those who have mental illness leads to an

increase in knowledge of mental illness, as well as acceptance of those who have mental illness (Siu et al., 2012; Stuart, 2005; Wahlbeck, 2015). These are all possibilities that are still worth exploring and the scales used in this experiment are likely valid tools to measure the constructs mentioned here.

It should also be noted that while the MTurk sample used here is likely more diverse than the average sample consisting of college students, there is still room to expand the sample to better represent the American news consumer. This would provide better insight about the stigma of mental illness among the entire population. Additionally, the effect sizes for the findings here were relatively low. Several knowledge and attitude variables related to mental illness were considered in this study as control variables, but they did not have much additional predictive value. Which means that the current model needs to be expanded with other types of concepts to examine in more detail why violence in a news story is often automatically linked to mental illness.

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Table 1. Means table average motive mental illness

	No Violence	Low Violence	High Violence
Mental Illness Frame	4.2 (2.1)	5.3 (1.4)	4.9 (1.8)
No Mental Illness Frame	4.1 (1.6)	4.6 (1.7)	5.5 (1.7)

Note. Standard deviation in parentheses.

Table 2. Means table ranked motive mental illness

	No Violence	Low Violence	High Violence
Mental Illness Frame	4.2 (2.4)	2.8 (2.3)	3.2 (2.2)
No Mental Illness Frame	4.7 (2.0)	4.5 (2.7)	2.8 (2.5)

Note. Standard deviation in parentheses.

Table 3. Ranking level for mental illness as motive based on violence level and frame.

Mental Illness Frame	No Violence	Low Violence	High Violence
Rank 1	20% (7)	47% (14)	40% (12)
Rank 2	14% (5)	20% (6)	7% (2)
Rank 3	6% (2)	0% (0)	7% (2)
Rank 4	14% (5)	10% (3)	20% (6)
Rank 5	9% (3)	3% (1)	7% (2)
Rank 6	17% (6)	7% (2)	7% (2)
Rank 7	9% (3)	13% (4)	13% (4)
Rank 8	11% (4)	0% (0)	0% (0)

No Mental Illness Frame	No Violence	Low Violence	High Violence
Rank 1	5% (2)	22% (8)	50% (15)
Rank 2	5% (2)	8% (3)	14% (4)
Rank 3	19% (7)	14% (5)	14% (4)
Rank 4	24% (9)	6% (2)	0% (0)
Rank 5	11% (4)	6% (2)	0% (0)
Rank 6	14% (5)	11% (4)	0% (3)
Rank 7	8% (3)	17% (6)	3% (1)
Rank 8	14% (5)	17% (6)	10% (3)

Note. Number of participants ranking mental illness per category in parentheses.

Table 4: Average rankings per motive category (Wilcoxon S-R Test)

Mental Illness: YES	No Violence	Low Violence	High Violence
Mental illness	4.20	2.77	3.20
Drug use	4.17	3.73 **	4.20 *
Financial difficulty	3.17	5.10 **	3.77
Criminal history	4.29	4.90 ***	4.77 **
Family background	4.51	4.30	4.67 **
Prior victimization	4.91	4.33 *	4.17
Education level	4.46	5.30 **	5.33 **
Marital status	6.29 **	5.57 **	5.90 **

Mental Illness: NO	No Violence	Low Violence	High Violence
Mental illness	4.70	4.47	2.80
Drug use	4.11	3.83	4.50 **
Financial difficulty	3.16 **	5.06	4.70 **
Criminal history	3.86 *	4.25	4.17 *
Family background	4.27	4.03	4.63 **
Prior victimization	5.24	4.56	3.77
Education level	4.62	4.69	5.63 **
Marital status	6.03 **	5.11	5.80 **

Note. Comparing individual category with mental illness category. * < .05, ** < .01, *** < .001. Lower mean ranking for individual category compared to mental illness in bold.

Appendix A

Story Stimuli

1. High Violence/No Mental Illness Frame

HESSTON, Ka. (AP) — The employee who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kan., has been identified by local media as the 38-year-old James Miller.

Fifteen of the victims were shot inside the building—including all three who died. The attack lasted for 26 minutes.

Harvey County Sheriff Todd Walton told NBC News on Friday that Miller used an assault rifle during the attack, but did not appear to fire his semi-automatic pistol.

"We always say it won't happen here. Well here it is. It happened here," Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

2. Low Violence/No Mental Illness Frame

HESSTON, Ka. (AP) — The local resident who has been charged with aggravated battery and disorderly conduct following an alleged altercation at a bar in Hesston, Kan., has been identified by local media as the 38-year-old James Miller.

As many as fifteen individuals were involved in the disturbance, with three requiring medical treatment at a local hospital.

Harvey County Sheriff Todd Walton told NBC News on Friday that Miller became belligerent and refused to leave the venue, pushing and hitting victims in the process of being removed by security.

"We always say it won't happen here. Well here it is. It happened here," Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

3. No Violence/No Mental Illness Frame

HESSTON, Ka. (AP) — The local contractor who has been charged with multiple counts of identity theft and criminal possession of stolen property in Hesston, Kan., has been identified by local media as the 38-year-old James Miller.

Fifteen victims have come forward claiming that Miller stole checks, credit cards, and other valuables from their homes over the course of the summer.

Harvey County Sheriff Todd Walton told NBC News on Friday that Miller used the credit cards at multiple stores and had cashed several checks at local check cashing companies.

"We always say it won't happen here. Well here it is. It happened here," Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

4. High Violence/ Mental Illness Frame

HESSTON, Ka. (AP) — The employee who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kan., has been identified by local media as the 38-year-old James Miller.

Fifteen of the victims were shot inside the building—including all three who died. The attack lasted for 26 minutes.

Harvey County Sheriff Todd Walton told NBC News on Friday that Miller used an assault rifle during the attack, but did not appear to fire his semi-automatic pistol.

Miller has no officially diagnosed mental health issues, but the sheriff believes that he had bipolar disorder. “Miller never wanted to discuss the topic with his doctor,” Walton said.

“We always say it won’t happen here. Well here it is. It happened here,” Walton told NBC News. “We’ll get through it. It’s a good community of good, strong people.”

5. Low Violence/ Mental Illness Frame

HESSTON, Ka. (AP) — The local resident who has been charged with aggravated battery and disorderly conduct following an alleged altercation at a bar in Hesston, Kan., has been identified by local media as the 38-year-old James Miller.

As many as fifteen individuals were involved in the disturbance, with three requiring medical treatment at a local hospital.

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Miller has no officially diagnosed mental health issues, but the sheriff believes that he had bipolar disorder. “Miller never wanted to discuss the topic with his doctor,” Walton said.

“We always say it won’t happen here. Well here it is. It happened here,” Walton told NBC News. “We’ll get through it. It’s a good community of good, strong people.”

6. No Violence/ Mental Illness Frame

HESSTON, Ka. (AP) — The local contractor who has been charged with multiple counts of identity theft and criminal possession of stolen property in Hesston, Kan., has been identified by local media as the 38-year-old James Miller.

Fifteen victims have come forward claiming that Miller stole checks, credit cards, and other valuables from their homes over the course of the summer.

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“We always say it won’t happen here. Well here it is. It happened here,” Walton told NBC News. “We’ll get through it. It’s a good community of good, strong people.”

Appendix B

Previous Project Phases

The current study is the final phase of a multi-part project that began in the summer of 2018. At the outset, the stated purpose was to demonstrate the need to educate journalism students about mental health literacy and the effects of gatekeeping and framing in the stories they produce. The study was also meant demonstrate that the choices made in gatekeeping and framing a news story can have an effect on the way readers perceive those who may have mental illness and the connection made between mental illness and violent actions.

To these ends, a small pilot study was launched. Undergraduate journalism students ($n = 54$) were recruited through journalism faculty and outside respondents ($n = 150$) were recruited through Amazon's Mechanical Turk platform. The structure of the study was similar to the current study. However, the focus of the manipulation was on the official source within the story and terminology used to describe the potential mental illness in the suspect, not on the violence level and mental illness frame. The sources were a law enforcement official and a medical doctor, and the terminology variations for mental illness were clinical language (using the names of actual disorders) and slang terminology (a derogatory term for mental illness). The focus of the research questions were the believability of the sources, as well as the potential motives assigned by the participants to the suspect. There were five stimuli stories in total, including the control story which had no mention of mental illness.

When it came time to analyze the data from these two groups there was not enough variance in the data and all findings were inconclusive. It was decided that there were too many conditions and variables for the number of responses collected. Additionally, the decision was made to drop the student portion of the project and focus on general audience responses to

mental health framing in the news stories. The need to survey students on this topic is still an important area of study and will be pursued in the coming years.

For phase one of the current study three stimuli stories were used. All stories used the law enforcement official from the previous phase as the primary source of information in the article. The control story made no mention of mental illness. The second and third stories made references to potential mental illness in the shooter. The second story used slang terminology, “I can’t get into the mind of the psychopath.” The third story used clinical terminology to describe the supposing mental-health issues of the shooter. In this phase the analysis once again yielded inconclusive findings. However, this phase did uncover some needed changes in the study design. An eye tracking test revealed that most readers were only reading the first few paragraphs of the article and then scanning the rest. Therefore, further articles would need to be shortened to make sure that readers actually reached the relevant portions of the story. The stories were stripped down to just the necessary information to accommodate this.

In phase two the decision was made to move the focus away from terminology and source believability, and look at violence level as a variable. For this phase the mention of mental illness was left out of all three stimuli stories. The first story used was the control story from the previous phase. Two additional stories were written with variations to the violence level of the crime committed by the suspect. These stories appeared in the final phase as the no mental illness frames of their respective violence levels. It was found that audience perceptions seemed to be moving in the direction of assigning more blame for mental illness to the more violent stories even with no mention of mental illness present in the articles themselves. However, other motives were also ranked highly for each of the stories, with one (financial difficulty) being ranked higher in the high violence condition. It was that discovery that led to the construction of

the current and final phase with a ranked motive question to force respondents to place potential motives in a ranked order.

Table 1. Phase two means table average motives

	No Violence	Low Violence	High Violence
Financial Difficulty	4.7 (1.8)	4.6 (1.8)	5.2 (1.6)
Criminal History	4.7 (1.7)	4.9 (1.7)	4.8 (1.6)
Mental Illness	4.7 (1.7)	4.7 (1.9)	4.8 (1.7)
Drug Use	4.2 (1.8)	4.7 (1.9)	4.5 (1.7)
Family Background	4.2 (1.6)	4.6 (1.8)	4.7 (1.6)
Prior Victimization	4.3 (1.6)	4.6 (1.8)	4.2 (1.5)
Education Level	4.1 (1.8)	4.5 (1.7)	4.7 (1.8)
Marital Status	3.4 (1.8)	4.0 (1.7)	3.9 (1.9)

Note. Standard deviation in parentheses.

Appendix C

Story Stimuli from Previous Phases

Pilot Study

Story #1 Law Enforcement/No Mental Illness

HESSTON, Ka. (AP) — The shooter who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kansas, has been identified by local media as James Miller, an employee of Excel.

Miller has a criminal history in Broward County, Florida where he is originally from, according to online court records. On December 17, 2010 in Broward County, he was arrested on charges of felony check forgery and one felony count each of possession of a stolen check and theft by swindle. Miller pleaded guilty to stealing checks from his grandmother and forging them to buy a car. He was sentenced to probation.

Miller, 38, was armed with an assault rifle and semi-automatic pistol as he began randomly shooting. His six-mile trail of violence lasted just 26 minutes — from when the gunman shot and injured a person at about 5 p.m. local time (6 p.m. ET) Thursday and stole a truck, until the first police officer on the scene shot him dead.

Fifteen of the victims were shot inside the building — including all three who died, Harvey County Sheriff T. Walton first said at a news briefing Thursday night.

Walton told NBC News on Friday that Miller used the assault rifle during the attack, but did not appear to fire his pistol.

The sheriff, when asked about a possible motive, said deputies had previously received reports of a workplace scuffle at Excel involving Miller and another employee.

Walton at a news conference Friday morning declined to detail the cause of the altercation, or if any of the victims were involved, saying the investigation was still in its early stages.

Miller was known to frequent Kansas casinos and may have recently had a run of bad luck resulting in heaving losses.

The sheriff said that while Miller was a 'pretty prolific' gambler, his financial records indicate that 'he was going in the wrong direction.'

The FBI and the federal Bureau of Alcohol, Tobacco, Firearms and Explosives were on the scene but the sheriff said the incident was not related to "terrorism."

"We always say it won't happen here. Well here it is. It happened here," Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Story #2 Law Enforcement/Slang Terminology

HESSTON, Ka. (AP) — The shooter who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kansas, has been identified by local media as James Miller, an employee of Excel.

Miller has a criminal history in Broward County, Florida where he is originally from, according to online court records. On December 17, 2010 in Broward County, he was arrested on charges of felony check forgery and one felony count each of possession of a stolen check and theft by swindle. Miller pleaded guilty to stealing checks from his grandmother and forging them to buy a car. He was sentenced to probation.

Miller, 38, was armed with an assault rifle and semi-automatic pistol as he began randomly shooting. His six-mile trail of violence lasted just 26 minutes — from when the gunman shot and injured a person at about 5 p.m. local time (6 p.m. ET) Thursday and stole a truck, until the first police officer on the scene shot him dead.

Fifteen of the victims were shot inside the building — including all three who died, Harvey County Sheriff T. Walton first said at a news briefing Thursday night.

Walton told NBC News on Friday that Miller used the assault rifle during the attack, but did not appear to fire his pistol.

The sheriff stated no manifesto or anything else had been discovered to explain Miller's actions.

"I can't get into the mind of this psychopath at this point," Walton said.

The sheriff, when asked about a possible motive, said deputies had previously received reports of a workplace scuffle at Excel involving Miller and another employee.

Walton at a news conference Friday morning declined to detail the cause of the altercation, or if any of the victims were involved, saying the investigation was still in its early stages.

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The sheriff said that while Miller was a 'pretty prolific' gambler, his financial records indicate that 'he was going in the wrong direction.'

The FBI and the federal Bureau of Alcohol, Tobacco, Firearms and Explosives were on the scene but the sheriff said the incident was not related to "terrorism."

"We always say it won't happen here. Well here it is. It happened here," Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Story #3 – Medical Professional with Direct Knowledge/Clinical Terminology

HESSTON, Ka. (AP) — The shooter who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kansas, has been identified by local media as James Miller, an employee of Excel.

Miller has a criminal history in Broward County, Florida where he is originally from, according to online court records. On December 17, 2010 in Broward County, he was arrested on charges of felony check forgery and one felony count each of possession of a stolen check and theft by swindle. Miller pleaded guilty to stealing checks from his grandmother and forging them to buy a car. He was sentenced to probation.

Miller, 38, was armed with an assault rifle and semi-automatic pistol as he began randomly shooting. His six-mile trail of violence lasted just 26 minutes — from when the gunman shot and injured a person at about 5 p.m. local time (6 p.m. ET) Thursday and stole a truck, until the first police officer on the scene shot him dead.

Fifteen of the victims were shot inside the building — including all three who died, Harvey County Sheriff T. Walton first said at a news briefing Thursday night.

Walton told NBC News on Friday that Miller used the assault rifle during the attack, but did not appear to fire his pistol.

Miller had no known mental health disorders, but his primary care doctor told police that he believed Miller had bipolar disorder. Miller never wanted to discuss the topic, the doctor said. The Hesston physician, who was not identified in the report, described Miller to police as “odd” and as someone who displayed “little emotion.”

Miller refused antidepressant medications, but he did accept prescriptions for anti-anxiety drugs. The doctor noted that “Miller seemed fearful of medications, often refusing to take them.” The sheriff, when asked about a possible motive, said deputies had previously received reports of a workplace scuffle at Excel involving Miller and another employee.

Walton at a news conference Friday morning declined to detail the cause of the altercation, or if any of the victims were involved, saying the investigation was still in its early stages. Miller was known to frequent Kansas casinos and may have recently had a run of bad luck resulting in heaving losses.

The sheriff said that while Miller was a 'pretty prolific' gambler, his financial records indicate that 'he was going in the wrong direction.'

The FBI and the federal Bureau of Alcohol, Tobacco, Firearms and Explosives were on the scene but the sheriff said the incident was not related to "terrorism."

"We always say it won't happen here. Well here it is. It happened here," Sherriff Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Story #4 - Law Enforcement/Clinical Terminology

HESSTON, Ka. (AP) — The shooter who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kansas, has been identified by local media as James Miller, an employee of Excel.

Miller has a criminal history in Broward County, Florida where he is originally from, according to online court records. On December 17, 2010 in Broward County, he was arrested on charges of felony check forgery and one felony count each of possession of a stolen check and theft by swindle. Miller pleaded guilty to stealing checks from his grandmother and forging them to buy a car. He was sentenced to probation.

Miller, 38, was armed with an assault rifle and semi-automatic pistol as he began randomly shooting. His six-mile trail of violence lasted just 26 minutes — from when the gunman shot and injured a person at about 5 p.m. local time (6 p.m. ET) Thursday and stole a truck, until the first police officer on the scene shot him dead.

Fifteen of the victims were shot inside the building — including all three who died, Harvey County Sheriff T. Walton first said at a news briefing Thursday night.

Walton told NBC News on Friday that Miller used the assault rifle during the attack, but did not appear to fire his pistol.

Miller had no known mental health disorders, but the sheriff believes that he had bipolar disorder. “Miller never wanted to discuss the topic with his doctor,” the sheriff said.

The sheriff referred to reports from Excel employees that described Miller to police as “odd” and as someone who displayed “little emotion.”

Miller refused antidepressant medications, but he did accept prescriptions for anti-anxiety drugs. The sheriff noted that “Miller seemed fearful of medications, often refusing to take them.” The sheriff, when asked about a possible motive, said deputies had previously received reports of a workplace scuffle at Excel involving Miller and another employee.

Walton at a news conference Friday morning declined to detail the cause of the altercation, or if any of the victims were involved, saying the investigation was still in its early stages.

Miller was known to frequent Kansas casinos and may have recently had a run of bad luck resulting in heaving losses.

The sheriff said that while Miller was a 'pretty prolific' gambler, his financial records indicate that 'he was going in the wrong direction.'

The FBI and the federal Bureau of Alcohol, Tobacco, Firearms and Explosives were on the scene but the sheriff said the incident was not related to "terrorism."

"We always say it won't happen here. Well here it is. It happened here," Sherriff Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Story #5 – Medical Doctor with No Direct Knowledge/Clinical Terminology

HESSTON, Ka. (AP) — The shooter who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kansas, has been identified by local media as James Miller, an employee of Excel.

Miller has a criminal history in Broward County, Florida where he is originally from, according to online court records. On December 17, 2010 in Broward County, he was arrested on charges of felony check forgery and one felony count each of possession of a stolen check and theft by swindle. Miller pleaded guilty to stealing checks from his grandmother and forging them to buy a car. He was sentenced to probation.

Miller, 38, was armed with an assault rifle and semi-automatic pistol as he began randomly shooting. His six-mile trail of violence lasted just 26 minutes — from when the gunman shot and injured a person at about 5 p.m. local time (6 p.m. ET) Thursday and stole a truck, until the first police officer on the scene shot him dead.

Fifteen of the victims were shot inside the building — including all three who died, Harvey County Sheriff T. Walton first said at a news briefing Thursday night.

Walton told NBC News on Friday that Miller used the assault rifle during the attack, but did not appear to fire his pistol.

Miller had no known mental health disorders, but at least one mental health professional thinks mental illness could be a factor. Dr. Joel Young is a staff psychiatrist with Beaumont Hospital. "This is not an unusual situation," he said.

Dr. Young says this type of workplace violence incident could stem from mental illness. "Paranoia and whether there is psychotic illness, that's at play." Dr. Young says this incident should be a reminder of why mental health should be a priority in this country.

The sheriff, when asked about a possible motive, said deputies had previously received reports of a workplace scuffle at Excel involving Miller and another employee.

Walton at a news conference Friday morning declined to detail the cause of the altercation, or if any of the victims were involved, saying the investigation was still in its early stages.

Miller was known to frequent Kansas casinos and may have recently had a run of bad luck resulting in heaving losses.

The sheriff said that while Miller was a 'pretty prolific' gambler, his financial records indicate that 'he was going in the wrong direction.'

The FBI and the federal Bureau of Alcohol, Tobacco, Firearms and Explosives were on the scene but the sheriff said the incident was not related to "terrorism."

"We always say it won't happen here. Well here it is. It happened here," Sherriff Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Phase One

Story #1- Law Enforcement/No Mental Illness Frame

HESSTON, Ka. (AP) — The shooter who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kansas, has been identified by local media as James Miller, an employee of Excel.

Miller, 38, was armed with an assault rifle and semi-automatic pistol as he began shooting. Miller's attack lasted 26-minutes. He was shot dead by one of the first officers on the scene.

Fifteen of the victims were shot inside the building — including all three who died, Harvey County Sheriff T. Walton first said at a news briefing Thursday night.

Walton told NBC News on Friday that Miller used the assault rifle during the attack, but did not appear to fire his pistol.

"We always say it won't happen here. Well here it is. It happened here," Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Story #2 – Law Enforcement/Slang Terminology

HESSTON, Ka. (AP) — The shooter who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kansas, has been identified by local media as James Miller, an employee of Excel.

Miller, 38, was armed with an assault rifle and semi-automatic pistol as he began shooting. Miller's attack lasted 26-minutes. He was shot dead by one of the first officers on the scene.

Fifteen of the victims were shot inside the building — including all three who died, Harvey County Sheriff T. Walton first said at a news briefing Thursday night.

Walton told NBC News on Friday that Miller used the assault rifle during the attack, but did not appear to fire his pistol.

The sheriff stated no manifesto or anything else had been discovered to explain Miller's actions. "I can't get into the mind of this psychopath at this point," Walton said.

"We always say it won't happen here. Well here it is. It happened here," Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Story #3 – Law Enforcement/Clinical Terminology

HESSTON, Ka. (AP) — The shooter who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kansas, has been identified by local media as James Miller, an employee of Excel.

Miller, 38, was armed with an assault rifle and semi-automatic pistol as he began shooting. Miller's attack lasted 26-minutes. He was shot dead by one of the first officers on the scene.

Fifteen of the victims were shot inside the building — including all three who died, Harvey County Sheriff T. Walton first said at a news briefing Thursday night.

Walton told NBC News on Friday that Miller used the assault rifle during the attack, but did not appear to fire his pistol.

Miller had no known mental health disorders, but the sheriff believes that he had bipolar disorder. "Miller never wanted to discuss the topic with his doctor," the sheriff said.

The sheriff referred to reports from Excel employees that described Miller to police as "odd" and as someone who displayed "little emotion."

Miller refused antidepressant medications, but he did accept prescriptions for anti-anxiety drugs. The sheriff noted that "Miller seemed fearful of medications, often refusing to take them."

"We always say it won't happen here. Well here it is. It happened here," Sheriff Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Phase Two

Story #1 – High Violence/No Mental Illness Frame

HESSTON, Ka. (AP) — The shooter who killed three people and injured 14 others before being shot dead by law enforcement at Excel Industries in Hesston, Kansas, has been identified by local media as James Miller, an employee of Excel.

Miller, 38, was armed with an assault rifle and semi-automatic pistol as he began shooting. Miller's attack lasted 26-minutes. He was shot dead by one of the first officers on the scene.

Fifteen of the victims were shot inside the building — including all three who died, Harvey County Sheriff T. Walton first said at a news briefing Thursday night.

Walton told NBC News on Friday that Miller used the assault rifle during the attack, but did not appear to fire his pistol.

"We always say it won't happen here. Well here it is. It happened here," Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Story #2 – No Violence/No Mental Illness Frame

HESSTON, Ka. (AP) — A local contractor has been charged with multiple counts of identity theft and criminal possession of stolen property following a lengthy investigation by law enforcement.

James Miller of Hesston, Kansas, has been identified as the suspect by Harvey County Sheriff T. Walton.

Fifteen victims have come forward claiming that Miller stole checks, credit cards, and other valuables from their homes over the course of the summer.

Walton told NBC News on Friday that Miller used the credit cards at multiple stores and had cashed several checks at local check cashing companies.

"We always say it won't happen here. Well here it is. It happened here," Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Story #3 – Low Violence/No Mental Illness Frame

HESSTON, Ka. (AP) — A Hesston man has been charged with aggravated battery and disorderly conduct following an alleged altercation at a bar in Hesston.

James Miller of Hesston, Kansas, has been identified as the suspect by Harvey County Sheriff T. Walton.

As many as fifteen individuals were involved in the disturbance, with three requiring medical treatment at a local hospital.

Walton told NBC News on Friday that Miller became belligerent and refused to leave the venue, pushing and hitting victims in the process of being removed by security. The report continues to say Miller choked and grabbed another victim.

"We always say it won't happen here. Well here it is. It happened here," Walton told NBC News. "We'll get through it. It's a good community of good, strong people."

Appendix D

Additional Methods and Materials

The full experiment materials for this project included six stimuli stories, a newsworthiness perception questionnaire, a source believability questionnaire, a mental illness knowledge scale, and a mental illness empathy scale. Respondents were also asked to indicate prior exposure to mental illness and to identify the nature of that exposure (ex. self, family member, friend, none). Basic demographics were gathered. Also included were the informed consent page and respondent debriefing page.

The first section of the questionnaire presented the respondents with seven factors that might be used to describe a news story and asks them to rank their agreement with the statements on a seven point Likert-type scale ranging from strongly agree to strongly disagree. The seven factors include newsworthiness, audience appeal, accuracy, and trustworthiness. This section was used to determine any differences in audience perceptions between the various iterations of the story.

The second questionnaire section asked respondents to rank perceived contributing factors leading to the reported crime. These potential contributing factors included financial difficulty, drug use, and mental illness. The respondents were asked to rank the factors on a seven point Likert-type scale ranging from extremely likely to extremely unlikely. Respondents were also asked to order the contributing factors from most likely to have contributed to the criminal actions of the suspect to least likely. This section was used to determine differences in perceived contributing factors leading to violent crime between story versions.

The third section of the questionnaire utilized the Mental Health Knowledge Schedule (MAKS) (Evans-Lacko et al., 2010). This scale was developed to measure mental health related

knowledge among the public as a means of assessing and tracking known stigma producing elements in a population. This scale was used to measure the respondents' knowledge of and attitude toward mental illness and they were asked to rank their level of agreement with the statements in the scale on a seven point Likert-type scale that ranged from strongly agree to strongly disagree.

The fourth section of the questionnaire used an altered version of the Emotional Empathy Tendency Scale as developed by Turner (2007). The original instrument was developed to measure the level of empathy present in research subjects using general situations and phrases (Mehrabian & Epstein, 1972). Turner used that instrument to construct a sixteen-item scale consisting of eight positive empathy statements and eight negative empathy statements specifically dealing mental illness. This scale was used to assess the respondents' level of empathy toward those living with mental illness. Respondents were asked to rate their agreement with the statements given on a seven point Likert-type scale ranging from strongly agree to strongly disagree.

The final section of the questionnaire asked respondents to identify any previous contact or experience with mental illness. Options for this question included none, acquaintance, family member, and self. The respondents were invited to select all option that applied.

Validity

Two of the scales use in this experiment, the mental illness empathy scale and the mental illness knowledge scale, were already existing scales in the literature. The newsworthiness scale and believability scale were developed for this project. To determine the internal validity of the scales created for this project items were evaluated using internal consistency, a check of the Kaiser-Meyer-Olkin (KMO) measure of sampling accuracy, and exploratory factor analysis.

All items presented approximately equal means, standard deviations, and intercorrelations, and were judged to be internally consistent using those measures. For the newsworthiness scale All items loaded onto one scale factor and the KMO was found to be .87 (meritorious), indicating that the factor analysis was appropriate for this scale. A multi-item scale was formed based on the exploratory factor analysis. Cronbach's alpha (with correlation matrix and item analysis) was used to determine reliability of the scale. Alpha was .87 and no items were indicated to raise the alpha if deleted. Scale Mean = 5.30 and SD=.94. For the believability scale all items loaded onto one factor and the KMO was found to be .73 (meritorious), indicating that the factor analysis was appropriate for this scale. A multi-item scale was formed based on the exploratory factor analysis. Cronbach's alpha (with correlation matrix and item analysis) was used to determine reliability of the scale. Alpha was .81 and the analysis indicated that one factor would raise alpha if deleted, but by less than one-tenth of a percentage point. The item was left in as the benefit of deleting it was extremely small. Scale Mean = 4.78 and SD=1.17.

Coding and Reverse Coding of Variables and Scales

Newsworthiness: The newsworthiness scale was used indicate to what degree the participant finds the stimuli story to contain elements that indicate journalistic value. The elements contained in this scale were news worthiness, audience appeal, factuality, believability, accuracy, trustworthiness, and lack of bias. These elements were ranked on a seven point Likert-type scale and coded 1-7 with 7 being the highest level of agreement.

Believability: The believability scale was used to measure the believability of the source quoted in the story. This six item questionnaire contains three positively worded questions and three negatively worded questions. As above, the response options were on a seven point Likert-type scale ranging from extremely likely to extremely unlikely. For the positively worded

questions extremely likely was coded as seven and extremely unlikely was coded as one. The negatively worded questions were reversed coded where are extremely likely was coded as one and extremely unlikely was coded to seven. Reverse coded items: Believability_3, Believability_5, Believability_6

Knowledge: This knowledge scale was a previously developed scale used to measure the respondent's familiarity with generic mental health matters. This six item scale asked the respondents to rank their level of agreement with statements about mental health treatment, recovery options, and those of living with mental health conditions. This scale once again utilized a seven point Likert-type scale with 7 being the highest level of agreement.

Empathy: The empathy scale was used to measure the respondent's feelings of empathy toward those with mental illness. This 16 point scale contained eight positively worded items and eight negatively worded items. Respondents were asked to rank agreement with all items on a seven point Likert-type scale. Positively worded items were coded from seven to one with seven being the strongest level of agreement. Negatively worded items were reverse coded with one being the strongest level of the agreement. Reverse coded items: Empathy_2, Empathy_3, Empathy_7, Empathy_9, Empathy_11, Empathy_12, Empathy_14, Empathy_16.

Appendix E

Additional Survey Materials

Newsworthiness Scale

Read each statement carefully then decide to what extent you agree or disagree with the statement.

- This story is newsworthy
- This story has audience appeal
- This story is factually true
- This story is believable
- This story is accurate
- This story is trustworthy
- This story is unbiased

Believability Scale

Read each statement carefully then decide to what extent you agree or disagree with the statement.

- The law enforcement source in this story presented true facts
- The law enforcement source in this story is believable
- The law enforcement source in this story is accurate
- The law enforcement source in this story is trustworthy
- The law enforcement source in this story is unbiased

Mental Illness Knowledge Scale

Read each statement carefully then decide to what extent you agree or disagree with the statement.

- Most people with mental health problems want to have paid employment
- If a friend had a mental health problem, I know what advice to give them to get professional help
- Medication can be an effective treatment for people with mental health problems
- Psychotherapy (for example, talking therapy or counselling) can be an effective treatment for people with mental health problems
- People with severe mental health problems can fully recover
- Most people with mental health problems go to a health care professional to get help

Mental Illness Empathy Scale

Read each statement carefully then decide to what extent you agree or disagree with the statement.

- I get very angry when I see someone being ill-treated.
- I rarely let the feelings of others affect me.
- The mentally ill sometimes act out for no apparent reason.
- I cannot continue to feel OK if people around me are depressed.
- It makes me sad to hear stories about the severely mentally ill.
- The mentally ill deserve our sympathy.
- The severely mentally ill are probably unfriendly.
- I am very upset when I see people feeling psychological discomfort.
- I would rather work in a computer lab than be a therapist.
- There is no reason for the severely mentally ill to be feared.
- People make too much of the feelings and sensitivity of the mentally ill.
- Seeing people in distress doesn't bother me.
- I would rather be a social worker than work in a job training center.
- The misfortunes of others don't bother me.
- In many ways, the mentally ill are just like the rest of us.
- I am annoyed by mentally unstable people who are just sorry for themselves.

Previous Experience/Contact with Mental Illness

(select all that apply)

- None
- Acquaintance
- Co-Worker/Classmate
- Friend
- Family Member
- Self